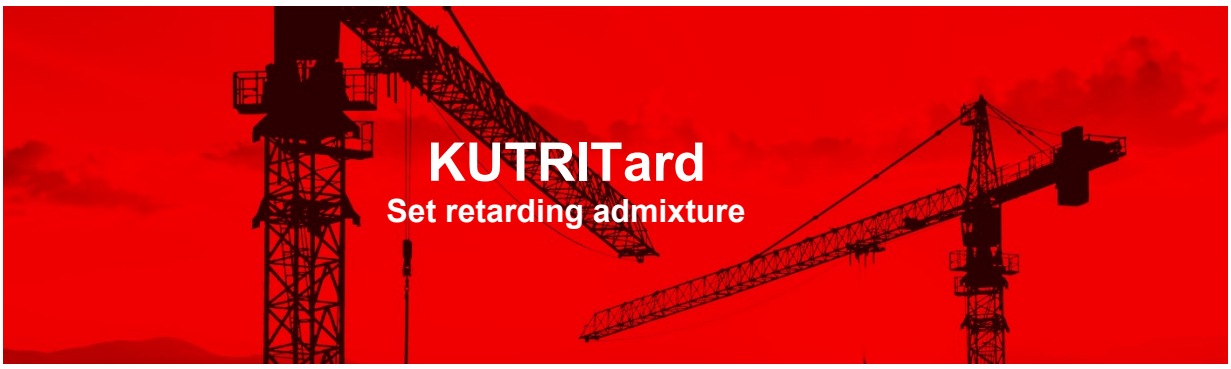
KUTRILIN

ISO 9001
ISO 14001
ISO 45001
BUREAU VERITAS
Certification




## Description and scope

**KUTRITard** is liquid set retarding admixture with with simultaneous plasticizing of concrete.

PHYSICAL - CHEMICAL CHARACTERISTICS

| | |
|---|---|
| Appearance | Bright-yellow liquid |
| Density ( 20 °C ) , kg/m3 | 1030 – 1060 |
| pH value | 6,0 – 8,0 |
| Chlorides | Do not contain |

**KUTRITard** at normal temperatures delays setting of concrete from 3 to 48 hours, depending on the dosage.

Higher ambient temperature oscillations during concrete installation significantly affect the setting process. Increasing the temperature reduces retardation and vice versa.

By slowing down setting time, **KUTRITard** causes uniform crystallization of the concrete structure, which results in higher strengths compared to concrete of the same composition without additives. The strength gain begins immediately after the retardation period ends, and later exceeds the compessive value of the reference concrete.

**KUTRITard** also has a plasticizing effect that also make easier installation of concrete.

**KUTRITard** does not increase the amount of air drawn into the concrete and does not corrode the steel in the concrete.

## Application

**KUTRITard** enables:

- ✓ control of setting time in long time intervals and in conditions of elevated temperatures

- ✓ long-term transport of concrete with mixers and pumps
- ✓ concreting of large monolithic structures, whereby by gradually reducing the dosage of **KUTRITard**, the simultaneous setting/hardening of the concrete mass is achieved.

In this way, the occurrence of large internal stresses and all the consequences that arise from them is avoided. It is known that the cement retardation and acceleration is strongly depend on the type of cement and temperature.

Therefore, for the desired retardation effect, it is necessary to experimentally determine the optimal dosage of **KUTRITard** with the use of all components intended for concrete. If any component of the concrete changes, especially the cement, during construction, it is mandatory to check the concrete recipe.

## Dosage

**KUTRITard** is dosed 0.3 - 1.0% by weight of binder, depending on the required retardation time. Doses greater than 1% can cause side effects.

**KUTRITard** is added to the concrete preparation water or directly to the concrete mixer.

## Packing and storage

**KUTRITard** can be purchased in cans of 50 kg, 200 kg barrels, IBC containers of 1100 kg or in larger quantities.

**KUTRITard** is stable for 6 months in tightly sealed packaging.

Replaces all previous releases for this product.
December, 2023.

| CONFIRMATION OF CONFORMITY | DECLARATION OF PERFORMANCE<br>2477-CPR-2790-010 |
|---|---|

CE

2477

KUTRILIN d.o.o. 10000 Zagreb
Radnička cesta 173P

20

2477-CPR-2790-010

HRN EN 934-2:2012
Set retarding admixture
KUTRITard

| | |
|---|---|
| Chloride ion content | ≤0,1% by mass |
| Alkali content | ≤2,0% by mass |
| Corrosion behaviour | No corrosion promotion effects on steel embedded in concrete |
| Hazardous substances | Do not content |

1. Inique identification mark of product:
**KUTRITard**
2. Intended use of the construction product acc to EN 934-2: **Set retarding admixture**
3. Name, registered trade name or registered trademark and contact address of the producer:
**KUTRILIN d.o.o., Radnička cesta 173P, HR-10000 Zagreb**
4. The system or systems for assessing and verifying the stability of the properties of the construction product, as set out in Annex V.CPR: **System 2+**
5. The product is in compliance with the harmonized standard:
**EN 934-2:2009+A1:2012 Admixtures for concrete, mortar and grout – Part 2: Concrete admixtures**
**Name and identification number of the notified body:**
**Institut IGH d.d., NB 2477**
6. Evaluation of characteristics in relation to standard requirements

| An imporatant feature | Property |
|---|---|
| Chloride ion content | *≤0,1% by mass* |
| Alkali content | *≤2,0% by mass* |
| Corrosion behaviour | *No corrosion promotion effects on steel embedded in concrete* |
| Compressive strenght T8 | *Pass* |
| Air content in fresh concrete (entrained air) T8 | *Pass* |
| Set retarding time T8 | *Pass* |

7. The product type described in item 1 is in compliance with the stated properties from item 6. Only the producer designated in point 3 is responsible for issuing the declaration of performance.

December, 2023.